

Under the Paperwork Reduction Project
Substitute for form 1449A/PTO

PTO/SB/08A (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Do not respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	4
-------	---	----	---

Complete if Known

Application Number	09/465,705
Filing Date	December 17, 1999
First Named Inventor	James Aweya
Art Unit	2662
Examiner Name	David Odland
Attorney Docket Number	82269-2

RECEIVED
JUL 07 2004
Technology Center

U.S. PATENT DOCUMENTS

[illegible]

Examiner
Signature

Date Considered

10/7/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

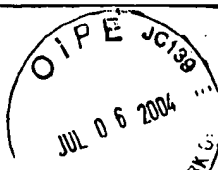
¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: T/Unsaved Document 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231

Unsaved Document

BEST AVAILABLE COPY

BEST AVAILABLE COPY



PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 4

Complete if Known

Application Number	09/465,705
Filing Date	December 17, 1999
First Named Inventor	James Aweya
Art Unit	2662
Examiner Name	David Odland
Attorney Docket Number	82269-2

RECEIVED

JUL 07 2004

Technology Center 2000

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
D.O.	C1	OTT, Teunis J.; LAKSHMAN, T.V.; WONG, Larry H.; "SRED: Stabilized RED", INFOCOMM '99, Eighteenth Annual Joint Conference of the IEEE Computer and Communications Societies Proceedings, IEEE, June 1999, Volume 3, Pages 1346-1355	
	C2	FENG, Wu-Chang; KANDLUR, Dilip D.; SAHA, Debanjan; SHIN, Kang G.; "BLUE: A New Class of Active Queue Management Algorithms", U. Michigan CSE-TR-387-99, April 1999	
	C3	FENG, Wu-Chang; KANDLUR, Dilip D.; SAHA, Debanjan; SHIN, Kang G.; "Techniques for Eliminating Packet Loss in Congested TCP/IP Networks", U. Michigan CSE-TR-349-97, November 1997	
	C22	SRINIVASAN, V.; VARGHESE, G.; "Faster IP Lookups using Controlled Prefix Expansion", ACM Transactions on Computer Systems, pp. 1-10, June 1998	
	C23	EATHERTON, William N.; "ASIC Based IPV4 Lookups", Washington University, Applied Research Laboratory, pp. 1-22, June 23, 1998	
	C24	EATHERTON, William N.; "Hardware-Based Internet Protocol Prefix Lookups", Thesis, Washington University, pp. 1-100, May 1999	
	C25	SRINIVASAN, V.; VARGHESE, G.; "Fast Address Lookups Using Controlled Prefix Expansion", ACM Transactions on Computer Systems, Vol. 17, No. 1, pp. 1-40, February 1999	
	C26	FILIPPI, E.; INNOCENTI, V.; VERCELLONE, V.; "Address Lookup Solutions for Gigabit Switch/Router", Globecom '98, Sydney, Australia, November 1998	
	C27	DEGERMARK, Mikael; BRODNIK, Andrej; CARLSSON, Svante; PINK, Stephen; "Small Forwarding Tables for Fast Routing Lookups", Proc. of ACM SIGCOMM, pp. 3-14, September 1997	
	C28	DOERINGER, Willibald; KARJOTH, Gunter; NASSEHI, Medhi; "Routing on Longest-Matching Prefixes", IEEE/ACM Trans. On Networking, Vol. 4, No. 1, pp. 86-97, February 1996	
	C29	TZENG, Henry Hong-Yi; PRZYGIENDA, Tony; "On Fast Address-Lookup Algorithms", pp. 1067-1082, IEEE Journal On Selected Areas In Communications, Vol. 17, No. 6, June 1999	
	C30	TZENG, Henry Hong-Yi; "Longest Prefix Search Using Compressed Trees", Globecom '98, Sydney, Australia, November 1998	
D.O.	C31	KUMAR, Vijay P.; LAKSHMAN, T.V.; STILIADIS, Dimitrios; "Beyond Best Effort: Router Architectures for the Differentiated Services of Tomorrow's Internet, IEEE Communications Magazine, pp. 152-164, May 1998	

Examiner
Signature

Date
Considered

10/2/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Unsaved Document

BEST AVAILABLE COPY



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 3 of 4

Complete if Known

Application Number	09/465,705
Filing Date	December 17, 1999
First Named Inventor	James Aweya
Art Unit	2662
Examiner Name	David Allen
Attorney Docket Number	82269-2

RECEIVED

JUL 07 2004

Technology Center 2600

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DD	C32	GUPTA, Pankaj; LIN, Steven; McKEOWN, Nick; "Routing Lookups in Hardware at Memory Access Speeds", IEEE INFOCOM, April 1998	
	C33	NILSSON, Stefan; KARLSSON, Gunnar; "Fast Address Lookup for Internet Routers", IFIP Workshop on Broadband Communications, pp. 10-22, April 1998	
	C34	WALDVOGEL, Marcel; VARGHESE, George; TURNER, Jon; PLATTNER, Bernhard; "Scalable High Speed IP Routing Lookups", Proc. Of ACM SIGCOM, September 1997	
	C35	LAMPSON, B.; SRINIVASAN, V.; VARGHESE, G.; "IP Lookups Using Multiway and Multicolumn Search", pp. 1-23, August 1997	
	C36	ZITTERBART, M.; HARBAUM, T.; MEIER, D.; BROKELMANN, D.; "HeaRT: High Performance Routing Table Look Up", IEEE Workshop Architecture & Implementation of High Performance Communications Subsystems, Thessaloniki, Greece, June 1997	
	C37	FULLER, V.; LI, T.; YU, J.; VARADHAN, K.; "Classless Inter-Domain Routing (CIDR): an Address Assignment and Aggregation Strategy", RFC 1519, Internet Engineering Task Force, September 1993	
	C38	PEI, Tong Bi; ZUKOWSKI, Charles; "Putting Routing Tables in Silicon", IEEE Network Magazine, pp. 42-50, January 1992	
	C39	MORRISON, Donald R.; "PATRICIA - Practical Algorithm To Retrieve Information Coded in Alphanumeric", Journal of the Association for Computing Machinery, pp. 514-534, Vol. 15, No. 4, October 1968	
	C41	GHANI, Nasir; "Enhanced TCP/IP ACK Pacing for High Speed Networks", Proc. 16th Int'l Teletraffic Congress, Edinburgh, Scotland, June, 1999	
	C42	MA, Jian; "Improving TCP Performance in IP networks with Wireless links", IEEE, ICPWC '99, Jaipur, India, pp. 211-215	
	C43	NARVAEZ, Paolo; SIU, Kai-Yeung; "Acknowledgement bucket scheme for regulating TCP flow over ATM", Computer Networks and ISDN Systems, IEEE Globecom '97, Phoenix, Arizona, November, 1997 pp. 1775-1791	
	C44	NARVAEZ, Paolo; SIU, Kai-Yeung; "An Acknowledgement Bucket Scheme for Regulating TCP Flow over ATM", IEEE Globecom '97, Phoenix, Arizona, November, 1997	
DD	C45	KIOKE, Arata; "TCP Flow control with ACR information", ATM Forum Contribution 97-0758R1, November, 1997	

Examiner
Signature

Date
Considered

10/7/04

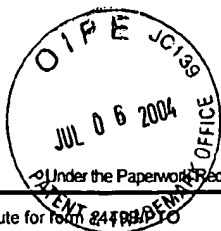
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Unsaved Document

BEST AVAILABLE COPY



PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 247 PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 4 of 4

Complete if Known

Application Number 09/465,705
Filing Date December 17, 1999
First Named Inventor James Aweya
Art Unit 2662
Examiner Name David Abland
Attorney Docket Number 82269-2

RECEIVED

JUL 07 2004

Technology Center 2600

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
J.O.	C46	STEVENS, W.; Memo (IETF RFC 2001): "TCP Slow Start, Congestion Avoidance, Fast Retransmit, and Fast Recovery Algorithms", January, 1997	
	C47	KARN, P.; "Dropping TCP acks", Mail to the end-to-end mailing list, February, 1996	
	C48	ASTROM, K.; HAGGLUND T.; "PID Controllers: Theory, Design and Tuning", Instrument Society of America, 1995, pp. v, 80-81	
	C49	RAMAKRISHNA, M.V.; FU, E.; BAHCEKAPILI, E.; "Efficient Hardware Hashing Functions for High Performance Computers", pp. 1378-1381; IEEE Transactions on Computers, Vol. 46, No. 12, December 1997	
	C50	JAIN, Raj; "A Comparison of Hashing Schemes for Address Lookup in Computer Networks"; pp. 1-17; Technical Report DEC-TR-593 Digital Equipment Corporation, February 1989	
	C51	McKENNEY, Paul E.; "High-Speed Event Counting and Classification Using a Dictionary Hash Technique"; pp. III-71 - III-75; International Conference on Parallel Processing, 1989	
V.A.	C52	CARTER, Larry; FLOYD, Robert; GILL, John; MARKOWSKY, George; WEGMAN, Mark; "Exact and Approximate Membership Testers"; Proc. 10th Annual ACM Symposium on Theory of Computing, pp. 59-65, May 1978	

Examiner
Signature

David Abland

Date
Considered

10/7/04

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Unsaved Document

BEST AVAILABLE COPY